

What is claimed is:

1. An automatic software component creating system comprising:

a software component definition data storage section which stores software component definition

5 data therein;

a software component creation rule storage section which stores software component creation rules therein;

10 a client program creation rule storage section which stores client program creation rules therein;

15 a software component creating section which creates a software component module with one or more software components based on said software component definition data and said software component creation rules in response to a start instruction; and

20 a client program creating section which creates a client program source code based on said software component definition data, said software component module, and said client program creation rules, when said software component module is created.

2. The automatic software component creating system according to claim 1, wherein said software component definition data includes one module data which includes at least one component data, which
5 includes at least one method data, which includes at

least one parameter data.

3. The automatic software component creating system according to claim 2, wherein said module data has a module name,

said component data has component data and
5 component attribute data,

said method data has a method name, method attribute data, method call format data, and method call order data, and

said parameter data has a parameter name, a
10 parameter type, and a parameter type data.

4. The automatic software component creating system according to claim 2, further comprising:

a software component defining section which defines said software component definition data from
5 inputted data to store in said software component definition data storage section.

5. The automatic software component creating system according to claim 4, wherein said software component defining section comprises:

a component data defining section which
5 defines said component data associated with said module data from said inputted data;

a method data defining section which defines

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said method data associated with said component data
from said inputted data; and

10 a parameter data defining section which defines
said parameter data associated with the method data
from said inputted data.

6. The automatic software component creating
system according to claim 1, wherein said software
component creating section comprises:

 a parameter creating section which creates
5 parameter(s) from said software component definition
data and parameter creation rules in response to a
parameter creation request;

 a method creating section which generates said
parameter creation request which creating method(s)
10 from said software component definition data and
method creation rules in response to a method creation
request;

 a component creating section which generates
said method creation request while creating
15 component(s) from software component definition data
and component creation rules in response to a
component creation request; and

 a module creating section which generates said
component creation request while creating said
20 software component module from said software component
definition data and module creation rules.

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7. The automatic software component creating system according to claim 6, wherein said software component creation rules comprises:

said module creation rules, in each of which a
5 rule for creation of a project file of said module is described;

said component creation rules including
component framework creation rules in each of which a
rule for creation of a framework of said component is
10 described, property creation rules in each of which a
rule for creation of property of said component is
described, and initial value creating rules, in each
of which initial values to be set in said property are
described;

15 said method creation rules including method
framework creation rules in each of which a rule for
creation of a framework of said method is described,
and method logic creation rules in each of which logic
to be executed by said method is described; and

20 said parameter creation rules in each of which
it is described that a parameter name and a type of
parameter are linked.

8. The automatic software component creating system according to claim 1, wherein said client program source code creating section comprises:

a parameter definition creating section which

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10 response to a parameter definition creation request;
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15 rules of said client program creation rules in
response to a pre-process creation request;

a post-process creating section which creates a post-process, which needs to be executed after the call of said software component based on said software component definition data and post-process creation rules of said client program creation rules in response to a post-process creation request; and

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        a client module creating section which creates
30  a framework of said client program source code based
    on said software component definition data and client

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module creation rules of said client program creation
rules while respectively outputting said parameter
definition creation request, said pre-process creation
35 request, said component call creation request and said
post-process creation request to said parameter
definition creating section, said pre-process creating
section, said component call creating section, and
said post-process creating section.

9. An automatic software component creating method
comprising the steps of:

(a) creating a software component module with
one or more software components based on software
5 component definition data and software component
creation rules in response to a start instruction; and

(b) creating a client program source code based
on said software component definition data, said
software component module, and client program creation
10 rules, when said software component module is created.

10. The automatic software component creating
method according to claim 9, wherein said software
component definition data includes one module data
which includes at least one component data, which
5 includes at least one method data, which includes at
least one parameter data.

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said component data has component data and
5 component attribute data,

10 said parameter data has a parameter name, a
parameter type, and a parameter type data.

(c) defining said software component definition
5 data from inputted data.

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        defining said component data associated with
5  said module data from said inputted data;

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defining said parameter data associated with
the method data from said inputted data.

14. The automatic software component creating method according to claim 9, wherein said (a) creating step comprises the steps of:

(d) generating a component creation request
5 while creating said software component module from said software component definition data and module creation rules of said software component creation rules;

(e) generating a method creation request while
10 creating component(s) from software component definition data and component creation rules of said software component creation rules in response to said component creation request;

(f) generating a parameter creation request
15 which creating method(s) from said software component definition data and method creation rules of said software component creation rules in response to said method creation request; and

(g) creating parameter(s) from said software
20 component definition data and parameter creation rules in response to said parameter creation request.

15. The automatic software component creating method according to claim 9, wherein said (b) creating step comprises the steps of:

(h) creating declaration and definition of each
5 of said parameters corresponding to the method to be

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called from a client program from said software
component definition data and parameter definition
creation rules of said client program creation rules
in response to a parameter definition creation

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10 request;
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(i) creating a pre-process which needs to be executed prior to a call of said software component based on said software component definition data and pre-process creation rules of said client program

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15  creation rules in response to a pre-process creation
    request;
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(j) creating a call process of each of said methods of said software component based on said software component definition data and component call creation rules of said client program creation rules in response to a component call creation request; and

(k) creating a post-process, which needs to be executed after the call of said software component based on said software component definition data and post-process creation rules of said client program creation rules in response to a post-process creation request; and

(1) creating a framework of said client program source code based on said software component definition data and client module creation rules of said client program creation rules while generating said parameter definition creation request, said pre-

process creation request, said component call creation request and said post-process creation request.

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